

Surface Mount Frequency Mixer

Level 13 (LO Power +13 dBm) 5 to 1000 MHz

RMS-2MH+ RMS-2MH



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

LO	1
RF	4
IF	5
GROUND	2,3,6

Features

- excellent L-R isolation, 39 dB typ.
- conversion loss, 6.72 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

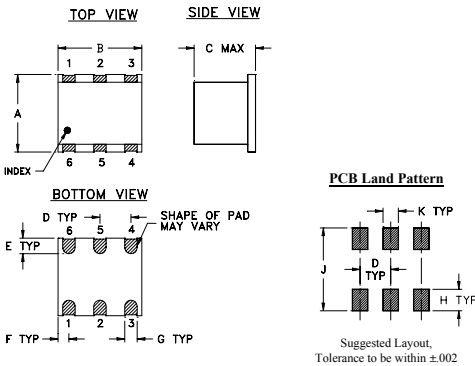
- UHF
- cellular/ISM/GSM

CASE STYLE: TT100
PRICE: \$9.95 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

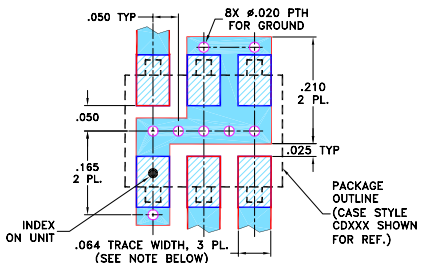
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.250	.31	.20	.100	.050	.055	
6.35	7.87	5.08	2.54	1.27	1.40	
G	H	J	K			wt
.040	.070	.270	.050			grams
1.02	1.78	6.86	1.27			0.50

Demo Board MCL P/N: TB-03
Suggested PCB Layout (PL-052)



Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
		L		M		U		L		M		U		
f _L -f _U	\bar{X} σ Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
5-1000 DC-1000	6.72 .08 8.5 9.5	55	40	39	20	22	16	52	35	30	17	18	12	22

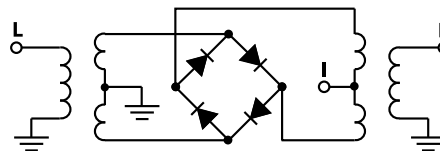
1 dB COMP: +9 dBm typ.
For phase detection, DC output positive with in-phase RF & LO.

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]
m = mid band [2f_L to f_U/2]

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
5.00	35.00	6.87	67.46	1.26	2.23
10.00	40.00	6.71	61.14	1.16	2.14
20.00	50.00	6.81	55.36	1.12	2.06
35.15	65.15	6.82	50.90	1.13	2.13
50.00	80.00	6.86	48.33	1.13	2.09
65.30	95.30	6.76	46.42	1.13	2.04
100.00	70.00	6.73	44.03	1.14	2.02
155.76	125.76	6.54	43.58	1.15	1.97
200.00	170.00	6.54	42.48	1.16	1.95
246.21	216.21	6.62	40.92	1.19	1.98
306.52	276.52	6.76	38.19	1.23	1.93
366.82	336.82	6.79	34.91	1.29	2.04
427.12	397.12	6.59	32.18	1.35	2.09
500.00	470.00	6.52	29.15	1.44	2.11
577.88	547.88	6.74	26.48	1.54	2.15
668.33	638.33	7.07	24.41	1.68	2.21
758.79	728.79	7.37	22.47	1.82	2.31
849.24	819.24	7.86	20.85	1.98	2.47
909.55	879.55	8.30	19.83	2.18	2.56
1030.00	970.00	8.73	19.01	2.43	2.61

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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Performance Charts

